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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/656,883	HORITA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hung T. Vy	2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 4/13/2005.
2. ☒ The allowed claim(s) is/are 1-3,5-9 and 11-13.
3. ☒ The drawings filed on 08 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>5/27/2005</u>.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|--|

  
**WILSON LEE**  
**PRIMARY EXAMINER**

**Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and /or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.3.12. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The following claim has been amended upon agreement by applicant during a telephone conversation with Mr. Phillip J. Articola on 05/25/2005.

Cancel claims 4 and 10.

In claim 11, line 1, the phrase "claim 4" has been changed to --claim 1--.

Amendments to claims 1 and 9:

1. (Currently Amended) A mobile phone antenna, comprising:  
a first conductive radiation element that is formed in a sheet metal conductor and resonates at a predetermined resonance frequency;  
a second conductive radiation element that is formed in the sheet metal conductor and resonates at the predetermined resonance frequency; and  
a ground that is connected through a conductive ground connector with said second conductive radiation element;  
wherein said ground is placed such that said ground is not opposed to said first and second conductive radiation elements, and  
wherein said second conductive radiation element functions as a ground,  
wherein said ground includes: a first ground that is connected through said conductive ground connector with said second conductive radiation element; and a second ground that is connected through a conductive inter-ground connector with said first ground, said second ground being capable of rotating in the range of a predetermined angle from a position that said second ground faces in parallel to said first ground,

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wherein said conductive inter-ground connector is positioned under said second conductive radiation element when said second ground rotates by said predetermined angle,

wherein said conductive inter-ground connector has a first bend portion at a first end thereof, a straight middle portion, and a second bend portion at a second end thereof, and

wherein the first bend portion is directly connected to said first ground and said second bend portion is directly connected to said second ground.

9. (Currently Amended) A mobile phone antenna for folding type mobile phone with a pair of housings foldable, comprising:

a first ground that is installed in one of said pair of housings;

a second ground that is installed in the other of said pair of housings, said second ground being connected through a conductive inter-ground connector with said first ground;

first and second conductive radiation elements that are disposed at a position where said first and second conductive radiation elements are not opposed to said first and second ground, said first and second conductive radiation element resonating at a predetermined resonance frequency; and

a conductive ground connector that electrically connects said first ground with said second conductive radiation element,

wherein said second conductive radiation element functions as a ground,

wherein said second ground is capable of rotating in the range of a predetermined angle from a position that said second ground is parallel to said first ground,

wherein said conductive inter-ground connector is positioned under said second conductive radiation element when said second ground rotates by said predetermined angle,

wherein said conductive inter-ground connector has a first bend portion at a first end thereof, a straight middle portion, and a second bend portion at a second end thereof, and

wherein said first bend portion is directly connected to said first ground and said second bend portion is directly connected to said second ground.

### Reasons for Allowance

3. Claims 1-3, 5-9 and 11-13 are allowed

The following is an examiner's statement of reason for allowance:

None of the references of record teaches or suggests the claimed a mobile phone antenna, comprising, along with all the other claimed feature, ground includes: a first ground that is connected through said conductive ground connector with said second conductive radiation element; and a second ground that is connected through a **conductive inter-ground connector** with said first ground, said second ground being **capable of rotating in the range of a predetermined angle** from a position that said second ground faces in parallel to said first ground, wherein said conductive inter-ground connector is positioned under said second conductive radiation element when said second ground rotates by said predetermined angle, wherein said conductive inter-ground connector has a **first bend portion at a first end thereof, a straight middle portion, and a second bend portion at a second end thereof**, and wherein the first bend portion is directly connected to said first ground and said second bend portion is directly connected to said second ground.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### Conclusion

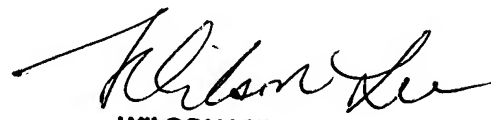
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DON WONG can be reached on (571) 272-1834. The fax numbers for the organization where this application or proceeding is

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assigned are (703) 872-9306 for regular communications and (703) 308-7722 for After Final communications.

Information regarding the status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either private Pair or Public Pair. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hung T. Vy  
Art Unit 2821  
May 27, 2005

  
**WILSON LEE**  
**PRIMARY EXAMINER**